AFCTN Report 94-085

AFCTB-ID 94-109

Technical Raster Transfer Using:

West Coast Information Systems' Data

Submitted By: OO-ALC/TIEDEE

Supporting: EDCARS Program

(Contract #F33657-75-C-0310)

MIL-STD-1840A

MIL-R-28002A (Raster)

Quick Short Test Report

12 August 1994

19960822 116

Prepared for

Electronic Systems Center
Air Force CALS Program Office
HQ ESC/AV-2
4027 Colonel Glenn Hwy Suite 300
Dayton OH 45431-1672

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Prepared By
Air Force CALS Test Bed
Wright-Patterson AFB, OH 45433

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Air Force CALS Test Bed

Notification of Test Results

12 August 1994

This notice documents the results of an Air Force CALS Test Bed (AFCTB) Quick Short Test Report (QSTR) evaluation of data submitted by:

West Coast Information Systems

Identified as follows:

Title:	**Technical Raster Transfer**
Program:	**EDCARS**
Program Office:	**OO-ALC/TIEDEE**
Contract No.:	**F33657-75-C-0310**
QSTR No.:	**AFCTB-ID 94-109**

Received on the following media: **Two 9-Track Tapes**

The results of the QSTR evaluation are as follows:

MIL-STD-1840A Standard:	**Tape #1 Fail - Tape #2 Fail**
MIL-STD-1840A Media Format:	**Tape #1 Fail - Tape #2 Fail**
MIL-D-28000A IGES:	**N/A**
MIL-M-28001A SGML:	**N/A**
MIL-R-28002A Raster:	**Tape #1 Pass - Tape #2 Fail**
MIL-D-28003 CGM:	**N/A**

Formal results with associated disclaimer are documented and available from the AFCTB.

Air Force CALS Test Bed
HQ ESC/AV-2P
4027 Colonel Glenn Highway, Suite 300
Dayton, OH 45431-1672
Phone: 513-257-3085   FAX: 513-257-5881

Contents

1. Introduction

1.1 Background

The Department of Defense (DoD) Air Force Continuous Acquisition and Life-cycle Support (CALS) Test Network (AFCTN) is conducting tests of the military standard for the Automated Interchange of Technical Information, MIL-STD-1840A, and its companion suite of military specifications. The AFCTN is a DoD sponsored confederation of voluntary participants from industry and government managed by the Electronic Systems Center (ESC).

The primary objective of the AFCTN is to evaluate the effectiveness of the CALS standards for technical data interchange and to demonstrate the technical capabilities and operational suitability of those standards. Two general categories of tests are performed to evaluate the standards; formal and informal.

Formal tests are large and comprehensive, which follow a written test plan, require specific authorization from the DoD, and may take months to prepare, execute, and report.

Informal tests are quick and short, used by the AFCTN technical staff, to broaden the testing base. They include representative samples of the many systems and applications used by AFCTN participants. They also allow the AFCTN staff to gain feedback from many industry and government interpretations of the standards, to increase the base of participation in the CALS initiative, and respond to the many requests for help that come from participants. Participants take part voluntarily, benefit by receiving an evaluation of their latest implementation (interpretation) of the standards, interact with the AFCTN technical staff, gain experience using the standards, and develop increased confidence in them. The results of informal tests are reported in Quick Short Test Reports (QSTRs) that briefly summarize the standard(s) tested, the hardware and software used, the nature of the test, and the results.

1.2 Purpose

The purpose of the informal test, reported in this QSTR, was to analyze OO-ALC/TIEDEE's interpretation and use of the CALS standards in transferring technical Raster data. OO-ALC/TIEDEE used its EDCARS Technical Data Interchange System to produce data, in accordance with the CALS standards, and delivered it to the AFCTN technical staff on two 9-track magnetic tapes.

This test is a follow on to QSTR #94-098, and is being conducted to help determine the source of errors in the CALS tape, which are being extracted from the EDCARS system.

2. Test Parameters

Test Plan: AFCTB 94-109

**Date of
Evaluation:**   12 August 1994

Evaluator: George Elwood
                                           Air Force CALS Test Bed
                                           DET 2 HQ ESC/AV-2P
                                           4027 Colonel Glenn Hwy
                                           Suite 300
                                           Dayton OH 45431-1672

**Data
Originator:**   Joe Bechtel
                                           OO-ALC/TIEDEE
                                           Bldg 1237
                                           6032 Fir Ave
                                           Hill AFB, UT 84056-5820
                                           (DSN) 458-6225

**Data
Description:**   Technical Raster Test
                                                   1 Document Declaration file
                                                   8 Raster files

**Data
Source System:**
                       1840
                                 HARDWARE
                                           A T & T EDCARS Proprietary Equipment
                                 SOFTWARE
                                           A T & T Proprietary Software (EDCALS)

                       Raster
                                 HARDWARE
                                           A T & T Proprietary Equipment
                                 SOFTWARE
                                           A T & T Proprietary Software

Evaluation Tools Used:

    MIL-STD-1840A (TAPE)
        SUN 3/280
            AFCTN *Tapetool v1.2.10 UNIX*
            XSoft *CAPS/CALS v40.4*

    MIL-R-28002 (Raster)
        HP 735
            AFCTN *xrastb.hp*
            Carberry *CADLeaf 4.0*
            InterCAP *X-Change v7.82*
        SGI Indigo2
            IGES Data Analysis (IDA) *CALSView*
        SUN SparcStation 2
            Carberry *CADLeaf Plus v3.1*
            AFCTN *validg4*
            AFCTN *xrastb.sun4*
            IDA *IGESView v3.0*
        PC 486
            AFCTN *validg4*
            Carberry *CADLeaf Windows*
            IDA *IGESView Windows*
            IDA *CALSView Windows*
            Inset Systems *HiJaak Pro*
            Expert Graphics *RxHighlight v1.0*

**Standards
Tested:**
        MIL-STD-1840A
        MIL-R-28002A

3.   1840A Analysis

3.1   External Packaging

The tapes arrived at the Air Force CALS Test Bed (AFCTB) enclosed in a padded commercial bag. The exterior of the bag was not marked with a magnetic tape warning label, as required by MIL-STD-1840A, para. 5.3.1.3.; however, it was marked as containing magnetic media. One of the tapes was damaged due to the lack of physical protection.

The tapes were not enclosed in a barrier bag or barrier sheet material as required by MIL-STD-1840A, para. 5.3.1.2. The tape reels did not contain labels indicating the recording density, as required by MIL-STD-1840A, para. 5.3.1. Some 9-track tape units require this BPI to be set manually. Enclosed in the bag was a packing list showing all files recorded on the tapes.

3.2   Transmission Envelope

The 9-track tapes received by the AFCTB contained MIL-STD-1840A files. The files were named per the standard conventions.

3.2.1   Tape Formats

3.2.1.1   Tape One

The first tape, marked "No internal label p/Maxima instructions," was run through the AFCTN *Tapetool v1.2.10* utility. No errors or warnings were reported while evaluating the contents of the tape labels. However, 13 notes were reported.

Four of the notes were "Invalid record size encountered." This is related to the tape label Record Length field for Type D files. Type D files contain variable length records that do not span blocks. All of the Type D files were flagged with an illegal value for Record Length.

File D001 was expected to be Type D according to MIL-STD-1840A. The AFCTN *Tapetool* expects a value of 260 in the Record Length field, but encountered a record length of 256. MIL-STD1840A para. 5.2.1.3 requires the variable record size be a maximum of 256 bytes. ANSI X3.27 para. 7.2.3 further states that the length of a Record Control Word (RCW) must be included in a Measured Data Unit (MDU) record length computation. This adds four bytes to the 256 for an MDU total of 260 bytes.

ANSI X3.27 para. 8.5.2.6 states that the Record Length field for Type D files shall contain the maximum length of an MDU.

While MIL-STD-1840A permits variable length records. Some software programs are sensitive to the number 260 because it is used to limit the record size when unblocking data. Some systems need this value to declare the maximum allowable record size as an attribute of a file when it is created.

Eight of the notes were short block notes. All eight Raster files had a reported incomplete last block. MIL-STD-1840A requires that the last block be padded to the end. By convention, this is done with the space character. Some tape drives will not process incomplete blocks which can result in the loss of data.

*** NOTE - Last block was incomplete. Short blocks are
proned to be interpreted as noise by some tape drives.
Tape Label => 2048, Actual => 1664, Block Number => 11

One note was reported on the tape label version. MIL-STD-1840A permits the use of both version three and four. The use of the most current standard should be used and noted.

All of the errors/warnings/notes are shown in Appendix A, Section 9.1. of this report.

The tape was read using XSoft's *CAPS read1840A* utility without any reported errors. However, it did report the wrong number of files in the Document Declaration file.

The physical structure of the first tape meets the requirements defined in MIL-STD-1840A.

3.2.1.2 Tape Two

The second tape was run through the AFCTN *Tapetool v1.2.10* utility. Four errors were reported while evaluating the contents of the tape labels. This tape did not have tape marks or the required ANSI header records. No data was found on this tape.

As a second test, the basic UNIX tape dump command was issued. The resulting data was the same as shown in the *Tapetool* log. All of the errors are shown in Appendix A, Section 9.2. of this report.

The physical structure of the second tape does not meet the requirements defined in MIL-STD-1840A and ANSI X3.27.

3.2.2 Declaration and Header Fields

On tape one, nine errors and eight notes were reported in the Document Declaration file and data file headers. In Document Declaration File D001, an invalid change level was flagged. This record contained both the word ORIGINAL and a date, which is not permitted.

```
chglvl: ORIGINAL, 4808120702
*** ERROR (MIL-STD-1840A; 5.1.1.2) - Invalid change level encountered.
*** NOTE (MIL-STD-1840A; 5.1.1.2) - Change level should be the word ORIGINAL
    or a Revision Number followed by a Change Level Number followed by
    a Change Level Date.  They should be separated by a comma or space.
```

Most of the Raster file headers had reported errors in the srcdocid record. The EDCARS system uses information in 80 character records, some of which are spaces. The space character is a valid value. These reported errors are not valid for this tape.

```
srcdocid:   D2-13483        81205               00010001UMEAHN
*** ERROR (MIL-STD-1840A; 5.1.4) - Value contains leading spaces.
*** NOTE - Correction made in new Raster Header File.
```

This portion of the first tape does not meet the requirements defined in MIL-STD-1840A, due to the error in the chglvl record.

4. IGES Analysis

No Initial Graphics Exchange Specification (IGES) files were included in this evaluation.

5. SGML Analysis

No Standard Generalized Markup Language (SGML) files were included in this evaluation.

6. Raster Analysis

Tape one contained eight Raster files. All files were evaluated using the AFCTN *validg4* utility. This program reported that all files meet the CALS MIL-R-28002A specification.

The files were read into the AFCTN *xrastb.sun4* viewing utility. No problems were noted.

The AFCTB has several tools for viewing Raster files. These tools are not used to generate a pass/fail but to report how commercially available software can handle the files. Many of these products are used in the development of technical publications and are good indicators of usability. The use of these products is not an endorsement nor an indication of CALS capability. All operations were performed using the default settings.

The Raster files were read into Carberry's *CADLeaf* software without a reported error. The images were displayed

The files were read using IDA's *CALSView* and *CALSView for Windows* without a reported error.

The files were read into IDA's *IGESView* and *IGESView for Windows* without a reported error.

The files were read into Inset Systems' *HiJaak for Windows* without a reported error.

The files were read using InterCAP's *X-Change* without a reported error.

The Raster files were imported into Expert Graphics' *Rx-Highlight* and displayed without a reported error.

The Raster files from the first tape meet the CALS MIL-R-28002A specification.

7. CGM Analysis

No Computer Graphics Metafile (CGM) files were included in this evaluation.

8. Conclusions and Recommendations

8.1 Tape One

The physical structure of the first tape was correct. The Document Declaration file contained an error in the chglvl record. This portion of the tape does not meet the CALS MIL-STD-1840A requirements. However, it does meet the requirements defined in ANSI x3.27.

The Raster files from the first tape meet the CALS MIL-R-28002A specification.

The first tape submitted by OO-ALC/TIMEDEE does not meet the CALS MIL-STD-1840A requirements, due to the errors in the chglvl record in the Document Declaration file.

8.2 Tape Two

The physical structure of the second tape was incorrect, and it contained no data. The tape does not meet the CALS MIL-STD-1840A nor the ANSI X3.27 requirements.

9.   Appendix A - Tapetool Report Logs

9.1   Tape One

9.1.1   Tape Catalog

CALS Test Network Catalog Evaluation - Version 1.2; Release 10 (C)

```
  Standards referenced:
    MIL-STD-1840A (1987) - Automated Interchange of Technical Information
    ANSI X3.27 (1987) - File Structure and labeling of Magnetic Tapes
                        for Information Interchange
    ANSI X3.4 (1986) - Coded Character Sets - 7 Bit ASCII
```

Fri Aug 12 09:11:10 1994
MIL-STD-1840A File Catalog
File Set Directory: /cals/u1210/Set046

Page: 1

File Name	File Type	Record Format/ Length	Block Length/Total	Selected/ Extracted
D001	Document Declaration	D/00256	02048/000001	Extracted

*** NOTE (MIL-STD-1840A; 5.2.1.3) - Unexpected maximum variable record size
    encountered. Header => 256, Expected => 260
*** NOTE (ANSI X3.27; 8.5.2.6) - Record Length for Recording Format Type D
    shall be the maximum length of a Measured Data Unit (MDU).
*** NOTE (ANSI X3.27; 7.2.3) - A variable length record shall be contained
    in an MDU. An MDU consists of a four byte Record Control Word (RCW)
    followed immediately by the variable record.
*** NOTE (ANSI X3.4) - A Record Control Word shall consist of four characters
    that express the sum of the lengths of the RCW and the variable record.

File Name	File Type	Record Format/ Length	Block Length/Total	Selected/ Extracted
D001R001	Raster	F/00128	02048/000011	Extracted
D001R002	Raster	F/00128	02048/000008	Extracted
D001R003	Raster	F/00128	02048/000060	Extracted
D001R004	Raster	F/00128	02048/000049	Extracted
D001R005	Raster	F/00128	02048/000053	Extracted
D001R006	Raster	F/00128	02048/000017	Extracted
D001R007	Raster	F/00128	02048/000073	Extracted
D001R008	Raster	F/00128	02048/000103	Extracted

Catalog Process terminated with 0 error(s), 0 warning(s), and 4 note(s).

9.1.2 Tape Evaluation Log

CALS Test Network Tape Evaluation - Version 1.2; Release 10 (C)
  Standards referenced:
    ANSI X3.27 (1987) - File Structure and labeling of Magnetic Tapes
                        for Information Interchange
    ANSI X3.4 (1986) - Coded Character Sets - 7 Bit ASCII

Fri Aug 12 09:10:52 1994

ANSI Tape Import Log

Allocating tape drive /dev/rmt0...

/dev/rmt0 allocated.

VOL1OOALC2   EDCALS   3

  Label Identifier: VOL1
  Volume Identifier: OOALC2
  Volume Accessibility:
  Owner Identifier: EDCALS
  Label Standard Version: 3

*** NOTE (ANSI X3.27; 8.3.1.8) - The Label Standard Version
    should be 4 to represent the current level of ANSI X3.27.

                    <<<<< *PART OF LOG FILE REMOVED HERE* >>>>>

*********** Tape Mark **************

HDR1D001R001   OOALC200010002000100 94214 00000 000000IBMZLA

  Label Identifier: HDR1
  File Identifier: D001R001
  File Set Identifier: OOALC2
  File Section Number: 0001
  File Sequence Number: 0002
  Generation Number: 0001
  Generation Version Number: 00
  Creation Date: 94214
  Expiration Date: 00000
  File Accessibility:
  Block Count: 000000
  Implementation Identifier: IBMZLA

HDR2F020480012840CALSOPT1/CONVERT   B   00

  Label Identifier: HDR2
  Recording Format: F
  Block Length: 02048
  Record Length: 00128
  Offset Length: 00

*********** Tape Mark **************

  Actual Block Size Found = 2048 Bytes.

*** NOTE - Last block was incomplete. Short blocks are
    proned to be interpreted as noise by some tape drives.
    Tape Label => 2048, Actual => 1664, Block Number => 11

  Number of data blocks read = 11.

*********** Tape Mark **************

EOF1D001R001   OOALC200010002000100 94214 00000 000011IBMZLA

  Label Identifier: EOF1
  File Identifier: D001R001
  File Set Identifier: OOALC2
  File Section Number: 0001
  File Sequence Number: 0002
  Generation Number: 0001
  Generation Version Number: 00
  Creation Date: 94214
  Expiration Date: 00000
  File Accessibility:
  Block Count: 000011
  Implementation Identifier: IBMZLA

EOF2F020480012840CALSOPT1/CONVERT   B   00

  Label Identifier: EOF2
  Recording Format: F
  Block Length: 02048
  Record Length: 00128
  Offset Length: 00

*********** Tape Mark **************

                    <<<<< *PART OF LOG FILE REMOVED HERE* >>>>>

*********** Tape Mark **************

Actual Block Size Found = 2048 Bytes.
*** NOTE - Last block was incomplete. Short blocks are
    proned to be interpreted as noise by some tape drives.
    Tape Label => 2048, Actual => 1408, Block Number => 8

 Number of data blocks read = 8.

*********** Tape Mark **************

EOF1D001R002   OOALC200010003000100 94214 00000 000008IBMZLA

                          <<<<< *PART OF LOG FILE REMOVED HERE* >>>>>

*********** Tape Mark **************

 Actual Block Size Found = 2048 Bytes.

*** NOTE - Last block was incomplete. Short blocks are
    proned to be interpreted as noise by some tape drives.
    Tape Label => 2048, Actual => 1792, Block Number => 60

 Number of data blocks read = 60.

*********** Tape Mark **************

EOF1D001R003   OOALC200010004000100 94214 00000 000060IBMZLA

                          <<<<< *PART OF LOG FILE REMOVED HERE* >>>>>

*********** Tape Mark **************

 Actual Block Size Found = 2048 Bytes.

*** NOTE - Last block was incomplete. Short blocks are
    proned to be interpreted as noise by some tape drives.
    Tape Label => 2048, Actual => 384, Block Number => 49

 Number of data blocks read = 49.

*********** Tape Mark **************

EOF1D001R004   OOALC200010005000100 94214 00000 000049IBMZLA

                          <<<<< *PART OF LOG FILE REMOVED HERE* >>>>>

*********** Tape Mark **************

Actual Block Size Found = 2048 Bytes.

*** NOTE - Last block was incomplete. Short blocks are
    proned to be interpreted as noise by some tape drives.
    Tape Label => 2048, Actual => 1536, Block Number => 53

Number of data blocks read = 53.

*********** Tape Mark **************

EOF1D001R005   OOALC200010006000100 94214 00000 000053IBMZLA

                        <<<<< *PART OF LOG FILE REMOVED HERE* >>>>>

*********** Tape Mark **************

Actual Block Size Found = 2048 Bytes.

*** NOTE - Last block was incomplete. Short blocks are
    proned to be interpreted as noise by some tape drives.
    Tape Label => 2048, Actual => 384, Block Number => 17

Number of data blocks read = 17.

*********** Tape Mark **************

EOF1D001R006   OOALC200010007000100 94214 00000 000017IBMZLA

                        <<<<< *PART OF LOG FILE REMOVED HERE* >>>>>

*********** Tape Mark **************

Actual Block Size Found = 2048 Bytes.

*** NOTE - Last block was incomplete. Short blocks are
    proned to be interpreted as noise by some tape drives.
    Tape Label => 2048, Actual => 512, Block Number => 73

Number of data blocks read = 73.

*********** Tape Mark **************

EOF1D001R007   OOALC200010008000100 94214 00000 000073IBMZLA

                        <<<<< *PART OF LOG FILE REMOVED HERE* >>>>>

*********** Tape Mark **************

Actual Block Size Found = 2048 Bytes.

*** NOTE - Last block was incomplete. Short blocks are
    proned to be interpreted as noise by some tape drives.
    Tape Label => 2048, Actual => 1664, Block Number => 103

Number of data blocks read = 103.

************ Tape Mark ***************

EOF1D001R008   OOALC200010009000100 94214 00000 000103IBMZLA

    Label Identifier: EOF1
    File Identifier: D001R008
    File Set Identifier: OOALC2
    File Section Number: 0001
    File Sequence Number: 0009
    Generation Number: 0001
    Generation Version Number: 00
    Creation Date: 94214
    Expiration Date: 00000
    File Accessibility:
    Block Count: 000103
    Implementation Identifier: IBMZLA

EOF2F020480012840CALSOPT1/CONVERT   B   00

    Label Identifier: EOF2
    Recording Format: F
    Block Length: 02048
    Record Length: 00128
    Offset Length: 00

************ Tape Mark ***************

************ Tape Mark ***************

############ End of Volume OOALC2 #############

############ End Of Tape File Set #############

Deallocating /dev/rmt0...

Tape Import Process terminated with 0 error(s), 0 warning(s),
and 9 note(s).

9.1.3 Tape File Set Validation Log

CALS Test Network File Set Evaluation - Version 1.2; Release 10 (C)

```
  Standards referenced:
    MIL-STD-1840A (1987) - Automated Interchange of Technical Information
```

Fri Aug 12 09:11:10 1994

MIL-STD-1840A File Set Evaluation Log

File Set: Set046

Found file: D001
Extracting Document Declaration Header Records...
Evaluating Document Declaration Header Records...

srcsys: West Coast Information Systems, Inc
srcdocid: To Be Assigned
srcrelid: NONE
chglvl: ORIGINAL, 4808120702
*** ERROR (MIL-STD-1840A; 5.1.1.2) - Invalid change level encountered.
*** NOTE (MIL-STD-1840A; 5.1.1.2) - Change level should be the word ORIGINAL
    or a Revision Number followed by a Change Level Number followed by
    a Change Level Date. They should be separated by a comma or space.
dteisu: 19940702
dstsys: UNKNOWN
dstdocid: To Be Assigned
dstrelid: NONE
dtetrn: 19940702
dlvacc: NONE
filcnt: R999
ttlcls: Unclassified
doccls: Unclassified
doctyp: Unclassified
docttl: EDCARS conversion to CALS group 4

1 error(s), 0 warning(s), and 1 note(s) were encountered
in Document Declaration File D001.

Found file: D001R001
Extracting Raster Header Records...
Evaluating Raster Header Records...

```
srcdocid:   D2-13483        81205                  00010001UMEAHN
*** ERROR (MIL-STD-1840A; 5.1.4) - Value contains leading spaces.
*** NOTE - Correction made in new Raster Header File.
dstdocid: 1840A group 4 site
txtfilid: NONE
figid: NONE
srcgph: NONE
doccls: NONE
rtype: 1
rorient: 090,270
rpelcnt: 001696,002348
rdensty: 0200
notes: EDCARS to 1840 group 4 conversion image

1 error(s), 0 warning(s), and 1 note(s) were encountered
 in Raster File D001R001.
Saving Raster Header File: D001R001_HDR
Saving Raster Data File: D001R001_GR4


Found file: D001R002
Extracting Raster Header Records...
Evaluating Raster Header Records...

srcdocid:   D2-18054-1      81205                  00010001UMEAHN
*** ERROR (MIL-STD-1840A; 5.1.4) - Value contains leading spaces.
*** NOTE - Correction made in new Raster Header File.
dstdocid: 1840A group 4 site
txtfilid: NONE
figid: NONE
srcgph: NONE
doccls: NONE
rtype: 1
rorient: 090,270
rpelcnt: 001696,002238
rdensty: 0200
notes: EDCARS to 1840 group 4 conversion image

1 error(s), 0 warning(s), and 1 note(s) were encountered
 in Raster File D001R002.
Saving Raster Header File: D001R002_HDR
Saving Raster Data File: D001R002_GR4


Found file: D001R003
Extracting Raster Header Records...
Evaluating Raster Header Records...
```

srcdocid: ENTERPRISE   99999   00010001UMEDHN
*** ERROR (MIL-STD-1840A; 5.1.4) - Value contains leading spaces.
*** NOTE - Correction made in new Raster Header File.
dstdocid: 1840A group 4 site
txtfilid: NONE
figid: NONE
srcgph: NONE
doccls: NONE
rtype: 1
rorient: 090,270
rpelcnt: 004496,006800
rdensty: 0200
notes: EDCARS to 1840 group 4 conversion image

1 error(s), 0 warning(s), and 1 note(s) were encountered
 in Raster File D001R003.
Saving Raster Header File: D001R003_HDR
Saving Raster Data File: D001R003_GR4

Found file: D001R004
Extracting Raster Header Records...
Evaluating Raster Header Records...

srcdocid: D7H16DW662-01   81755   00010001UMECHN
dstdocid: 1840A group 4 site
txtfilid: NONE
figid: NONE
srcgph: NONE
doccls: NONE
rtype: 1
rorient: 090,270
rpelcnt: 003440,004400
rdensty: 0200
notes: EDCARS to 1840 group 4 conversion image

Saving Raster Header File: D001R004_HDR
Saving Raster Data File: D001R004_GR4

Found file: D001R005
Extracting Raster Header Records...
Evaluating Raster Header Records...

```
srcdocid:   SHUTTLE        99999                    00010001U  EHN
*** ERROR (MIL-STD-1840A; 5.1.4) - Value contains leading spaces.
*** NOTE - Correction made in new Raster Header File.
dstdocid: 1840A group 4 site
txtfilid: NONE
figid: NONE
srcgph: NONE
doccls: NONE
rtype: 1
rorient: 090,270
rpelcnt: 006880,008800
rdensty: 0200
notes: EDCARS to 1840 group 4 conversion image

1 error(s), 0 warning(s), and 1 note(s) were encountered
 in Raster File D001R005.
Saving Raster Header File: D001R005_HDR
Saving Raster Data File: D001R005_GR4


Found file: D001R006
Extracting Raster Header Records...
Evaluating Raster Header Records...


srcdocid:   14-40602       76823 NTE68492A       00010001USBBHN
*** ERROR (MIL-STD-1840A; 5.1.4) - Value contains leading spaces.
*** NOTE - Correction made in new Raster Header File.
dstdocid: 1840A group 4 site
txtfilid: NONE
figid: NONE
srcgph: NONE
doccls: NONE
rtype: 1
rorient: 090,270
rpelcnt: 003632,004600
rdensty: 0200
notes: EDCARS to 1840 group 4 conversion image

1 error(s), 0 warning(s), and 1 note(s) were encountered
 in Raster File D001R006.
Saving Raster Header File: D001R006_HDR
Saving Raster Data File: D001R006_GR4


Found file: D001R007
Extracting Raster Header Records...
Evaluating Raster Header Records...
```

srcdocid: 16F4560   81755BB   00010002UMEEHN
*** ERROR (MIL-STD-1840A; 5.1.4) - Value contains leading spaces.
*** NOTE - Correction made in new Raster Header File.
dstdocid: 1840A group 4 site
txtfilid: NONE
figid: NONE
srcgph: NONE
doccls: NONE
rtype: 1
rorient: 090,270
rpelcnt: 007200,009300
rdensty: 0200
notes: EDCARS to 1840 group 4 conversion image
1 error(s), 0 warning(s), and 1 note(s) were encountered
 in Raster File D001R007.
Saving Raster Header File: D001R007_HDR
Saving Raster Data File: D001R007_GR4

Found file: D001R008
Extracting Raster Header Records...
Evaluating Raster Header Records...

srcdocid: 16H1910   81755 N   00010001UMEDHN
*** ERROR (MIL-STD-1840A; 5.1.4) - Value contains leading spaces.
*** NOTE - Correction made in new Raster Header File.
dstdocid: 1840A group 4 site
txtfilid: NONE
figid: NONE
srcgph: NONE
doccls: NONE
rtype: 1
rorient: 090,270
rpelcnt: 007040,008700
rdensty: 0200
notes: EDCARS to 1840 group 4 conversion image

1 error(s), 0 warning(s), and 1 note(s) were encountered
 in Raster File D001R008.
Saving Raster Header File: D001R008_HDR
Saving Raster Data File: D001R008_GR4

Evaluating numbering scheme...
No errors were encountered during numbering scheme evaluation.
Numbering scheme evaluation complete.

Checking file count...
*** ERROR (MIL-STD-1840A; 5.1.1.2) - Actual Raster File Count does
    not match filcnt record. Actual => 8, Expected => 999.
*** NOTE - Correction made in new Document Declaration header file.
1 error(s) were encountered during file count verification.
File Count verification complete.

A total of 9 error(s), 0 warning(s), and 8 note(s) were
encountered in Document D001.

A grand total of 9 error(s), 0 warning(s), and 8 note(s) were
encountered in this File Set.

MIL-STD-1840A File Set Evaluation Complete.

9.1.4   Other Tape Reading Logs

```
/cals/caps/Bin/read1840A: --- Read declaration file 'D001    ' ---
/cals/caps/Bin/read1840A: writing data file 'qstr94109/ToBeAssigned/
ToBeAssigned1.R.cci'.
/cals/caps/Bin/read1840A: writing data file 'qstr94109/ToBeAssigned/
ToBeAssigned2.R.cci'.
/cals/caps/Bin/read1840A: writing data file 'qstr94109/ToBeAssigned/
ToBeAssigned3.R.cci'.
/cals/caps/Bin/read1840A: writing data file 'qstr94109/ToBeAssigned/
ToBeAssigned4.R.cci'.
/cals/caps/Bin/read1840A: writing data file 'qstr94109/ToBeAssigned/
ToBeAssigned5.R.cci'.
/cals/caps/Bin/read1840A: writing data file 'qstr94109/ToBeAssigned/
ToBeAssigned6.R.cci'.
/cals/caps/Bin/read1840A: writing data file 'qstr94109/ToBeAssigned/
ToBeAssigned7.R.cci'.
/cals/caps/Bin/read1840A: writing data file 'qstr94109/ToBeAssigned/
ToBeAssigned8.R.cci'.
-- declaration file indicates 0 files of type T
-- declaration file indicates 0 files of type G
-- declaration file indicates 0 files of type H
-- declaration file indicates 0 files of type Q
-- declaration file indicates 999 files of type R
-- declaration file indicates 0 files of type C
-- declaration file indicates 0 files of type X
-- declaration file indicates 0 files of type P
-- declaration file indicates 0 files of type Z
*** WARNING: Declaration file indicates 999 Raster files, but tape contains
8 files.
```

9.2 Tape Two

9.2.1 Tape Evaluation Log

CALS Test Network Tape Evaluation - Version 1.2; Release 10 (C)
  Standards referenced:
    ANSI X3.27 (1987) - File Structure and labeling of Magnetic Tapes
                        for Information Interchange
    ANSI X3.4 (1986) - Coded Character Sets - 7 Bit ASCII

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ANSI Tape Import Log

Allocating tape drive /dev/rmt0...

/dev/rmt0 allocated.

σ┌╨± ╘┤π±≡±@@

*** ERROR (ANSI X3.27; 8.1) - Label contains invalid character(s).

╙┘±╫┘ ┌─K┤τ╫┌┘ πKπ┴╫┼@ ╘┤π±≡±═══±═══±@@@@@@@@ · ⌈≥±⌈═══════════┌┬ ╚@┌ΓaσΓ@≤≈≡@@@@@@@@

*** ERROR (ANSI X3.27; 8.1) - Label contains invalid character(s).

╙┘ ≥σ≤≡≈±⌈≤≡≈±≡⌈≡─╨╙┤τ╫π@a┌Γ┘ ≥⌡±@@@@@@@@@@@° °≈÷⌡@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@

*** ERROR (ANSI X3.27; 8.1) - Label contains invalid character(s).

************ Tape Mark **************

*** FATAL ERROR (ANSI X3.27; 6.4) - ANSI Label VOL1 missing.

Deallocating /dev/rmt0...

Tape Import Process terminated with 4 error(s), 0 warning(s),
and 0 note(s).